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PARKING AND CONSULTING SERVICES STUDY FOR THE CITY OF ST. LOUIS

Submitted:
October 17, 2014

DESMAN ASSOCIATES

TABLE OF CONTENTS

Introduction

In late 2013, the City of St. Louis began the process of updating the parking management system for both on- and off-street parking and enforcement. The City Treasurer's Office ("STLTO") requested proposals from qualified vendors and has since selected a vendor. Before introducing new meters and other upgrades to the system, the STLTO contracted with DESMAN to provide a comprehensive study assessing the City of St. Louis's parking system.

The study included an analysis of on- and off-street parking demand, benchmarking with similar communities, a review of parking rates, fines and fees, identification of locations for additional meters and meter removal, guidelines for establishing and maintaining permit parking zones, and principles for accommodating special events and construction in metered parking zones. Each of these subjects is dealt with in a separate chapter within the document which follows. Once approved, each chapter can serve as the basis for implementation of specific recommendations. In some cases, like meter removal or addition, this document is meant to serve as a guide. In other cases such as rates, fines and fees, the document can support the development of ordinance or policy amendments.

This report summarizes the six components of the parking study

Chapter 1 Occupancy Surveys
Chapter 2 Benchmarking
Chapter 3 Phasing of Meter Installation
Chapter 4 Residential Permit Parking Zones and Business Parking Spaces
Chapter 5 On- and Off-Street Parking Rate Recommendations
Chapter 6 Best Practices

These recommendations will help the Treasurer's Office improve the parking management system, install current technology and improve operations for consumers.

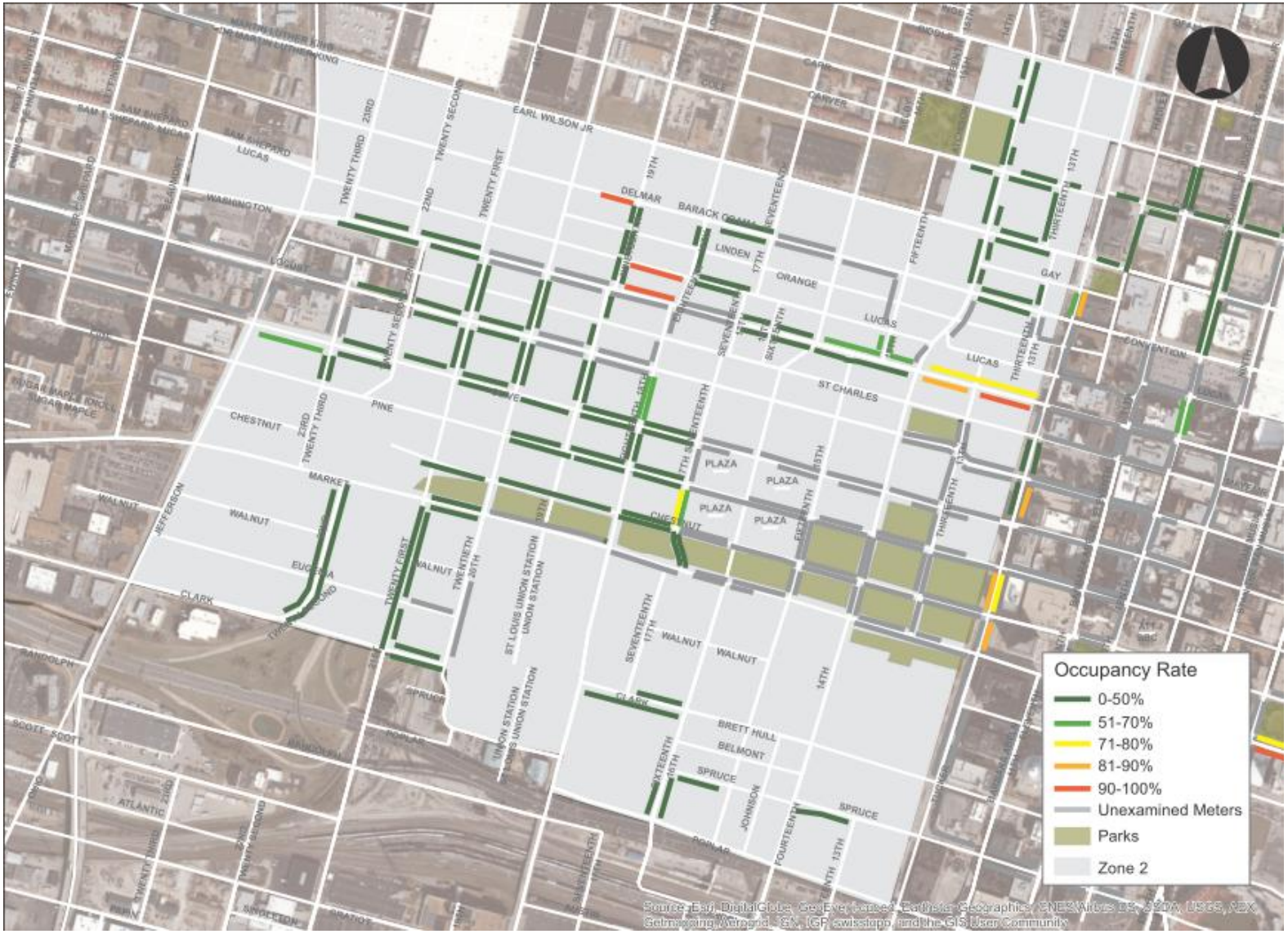
Chapter 1. Occupancy Surveys

In order to formulate successful long-term recommendations, it was necessary for DESMAN determined the existing demand for on-street and off-street parking through a series of on-site occupancy surveys. DESMAN surveyed City-owned parking structures, competing parking structures, and 40% of all metered spaces within the City of St. Louis from Tuesday, July 22, 2014 through Thursday, July 24, 2014. These surveys were conducted between the hours of 10:00 AM and 2:00 PM, which was identified as the City's peak demand period.

The maps below illustrate the observed peak demand for each of the off-street faculties examined and for the on-street parking meters in Zones 1-8. This data was used throughout the report to support DESMAN's recommendations and conclusions.

Zone 1 Occupancy

Zone 2 Occupancy

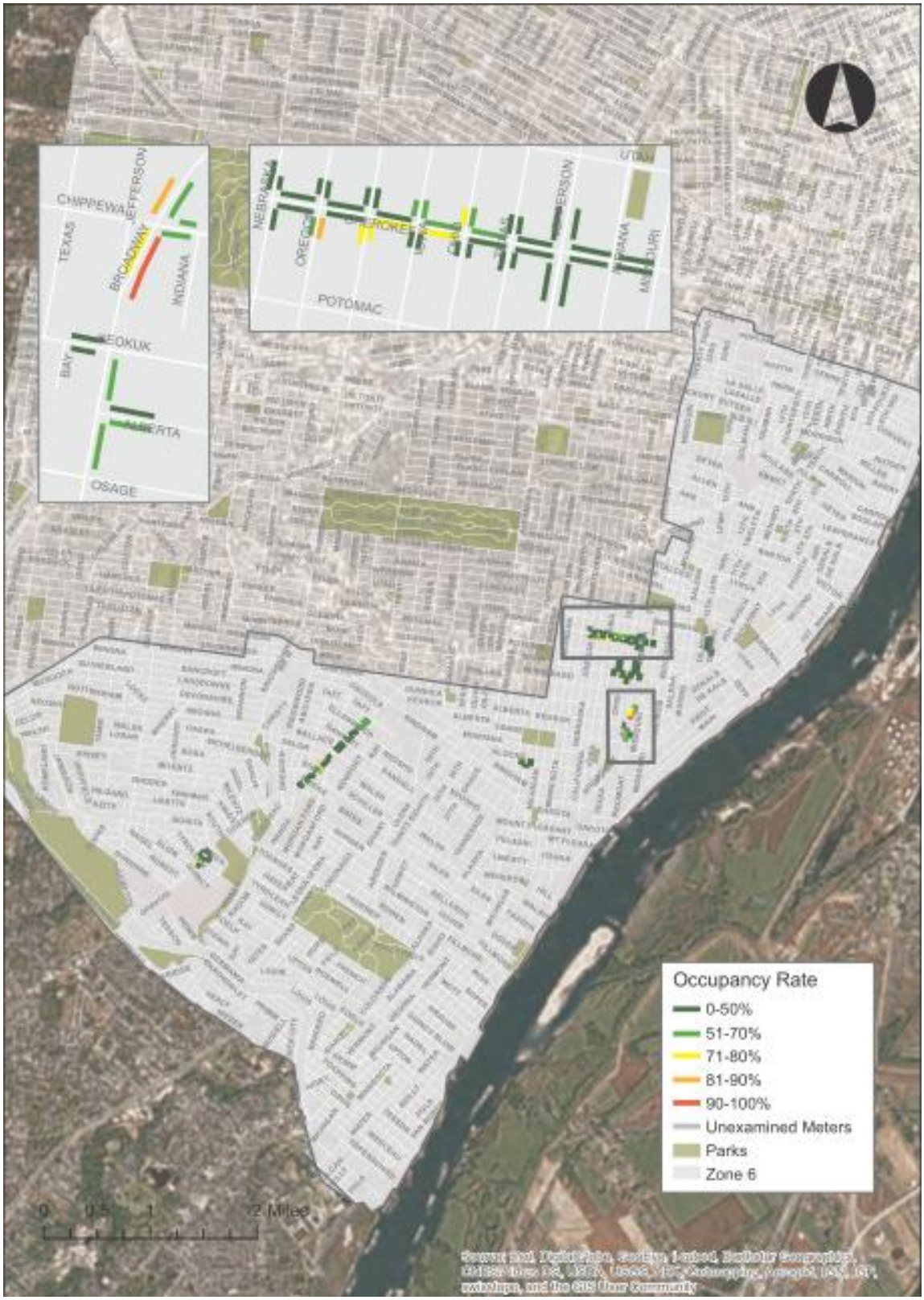


Zone 3 Occupancy

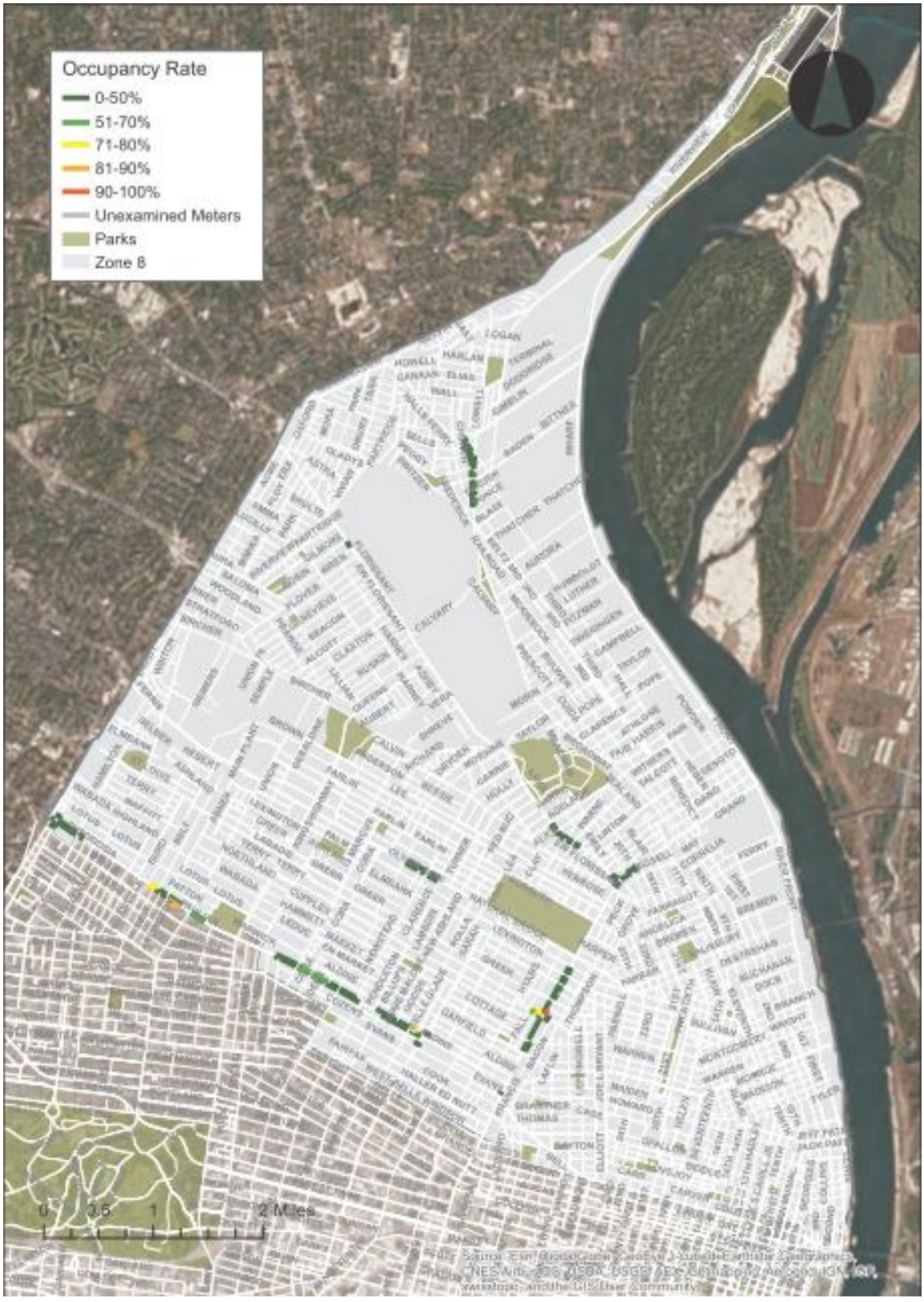
Zone 4 Occupancy

Zone 5 Occupancy

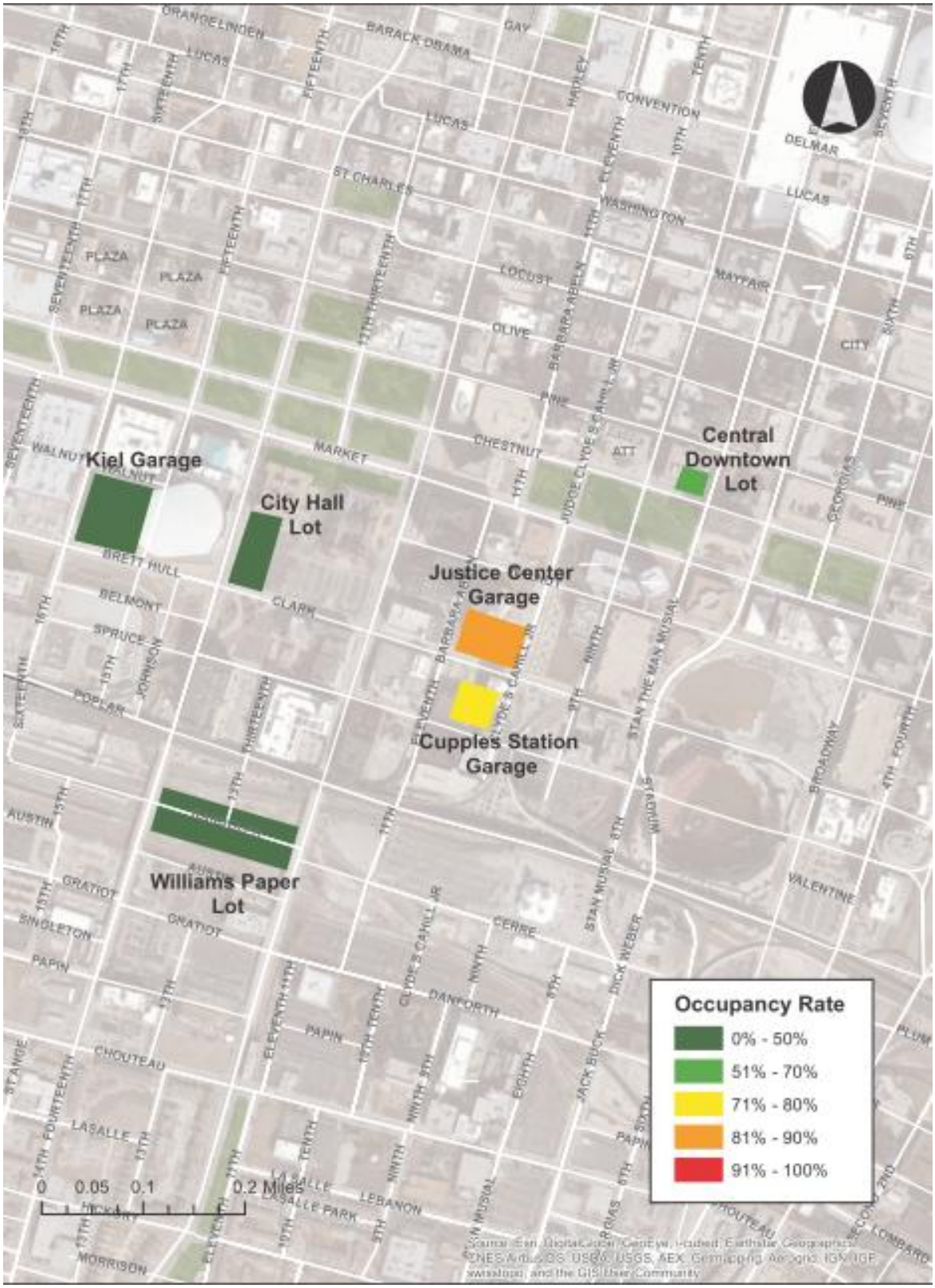
Zone 6 Occupancy



Zone 8 Occupancy



Off-Street Occupancy – Downtown Facilities



Off-Street Occupancy – Central West End Facilities

Chapter 2. Benchmarking

Introduction

A benchmarking analysis was conducted to compare the City's parking meter system to other major cities across the nation. Twelve (12) cities throughout the Unites States were selected for comparison with the City of St. Louis. The cities were chosen either because of their similarities in size, population, character, and overall parking supply as compared to St. Louis, or were chosen to illustrate the differences between parking in a city the size of St. Louis versus much larger cities in the U.S. (e.g. New York, Los Angeles, Chicago, etc.).

The narrative below summarizes each of the examined city's overall population, existing parking meter inventory, hours of operation, time limits, violation fines, rates, meter types, and available payment types.

Geographical Location, Population & Existing Inventory

Table 1 summarizes each city's total population and existing meter inventory. Out of the 12 cities selected, St. Louis is the second smallest city in terms of population and has the sixth highest number of meters (9,400). The city with the largest number of meters, as well as population, was New York City (86,000 meters/8,405,837population), while the city with the smallest population was Pittsburgh (305,841), with Memphis, Cleveland, and Kansas City each having the fewest meters (~1,500).

Table 1: List of Benchmark Cities

State	City	Population (2010)	Number of Meters
Indiana	Indianapolis	820,445	3,631
Tennessee	Memphis	670,132	1,500
Kansas	Kansas City	467,007	1,500
Maryland	Baltimore	622,104	11,000
Illinois	Chicago	2,695,598	35,000
Ohio	Cleveland	396,815	1,500
	Columbus	787,033	4,475
New York	New York City	8,405,837	86,000
California	Los Angeles	3,904,657	40,000
Virginia	Washington D.C.	646,449	17,000
California	San Francisco	837,442	25,000
Pennsylvania	Pittsburgh	305,841	6,937
Missouri	St. Louis	318,416	9,400

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Hours of Operation & Enforcement

Table 2 summarizes each city's parking meter hours of operation, time limits, violation fines, and late payment fees. The hours of enforcement in St. Louis are Monday through Saturday, between the hours of 8am and 7pm. Out of the 12 cities examined, 5 enforce meters after 7pm. The most frequent time limit was 2 hours, which is consistent with St. Louis. The longest time limit was 8 hours and was seen in Baltimore.

St. Louis currently charges $10.00 for overtime parking violations and $10.00 for a late payment fee if the violation is not paid within a specified period of time. As seen in Table 2, this the second lowest fine for overtime parking and late payment fee. The highest overtime parking violation is $65.00 in Los Angeles and the most expensive late payment fee is in New York City, which, at $100, is 10 times as high as St. Louis' current late payment fee. Although St. Louis is a smaller city than both New York and Los Angeles, this relationship between violation fines and late payment fees indicates that there is an opportunity to increase each of these rates.

Table 2: Comparison of Hours of Operation & Enforcement

City	Hours of Operation	Time Limit	Overtime Parking Violation Fine	Late Payment Fee
Indianapolis	Monday-Saturday, 7am-9pm. Residential areas: Monday-Friday, 7am-6pm	2-4 hours	$5.00-$10.00	$20.00-$25.00
Memphis	Monday-Friday, 8am-6pm	2 hours	$25.00	$45.00
Kansas City	Monday-Friday, 7am-6pm	2 hours	$15.00	$5.00-$10.00
Baltimore	Varies: Monday-Friday, 9am-4am; Monday-Saturday, 8am-8pm	2-8 hours	$10.00-$35.00	$30.00-$40.00
Chicago	Monday-Saturday, 8am-9pm; Residential Streets: Monday-Saturday, 9am-6pm	1-3 hours	$25.00	$10.00-$20.00
Cleveland	Monday-Friday, 7am-6pm	1-2 hours	$35.00	$20.00-$40.00
Columbus	Monday-Friday, 8am-10pm	1-2 hours	$10.00-$15.00	$15.00-$20.00
New York City	Varies: Monday-Saturday, 9am-5pm	1-3 hours	$35.00-$65.00	$25.00-$100.00
Los Angeles	Varies: Monday-Saturday, 8am-2am	2-4 hours	$50.00-$75.00	$21.00
Washington D.C.	Monday-Saturday, 7am to 6:30pm; centralized zones extend until 10pm	2 hours	$25.00-$30.00	$20.00-$50.00
San Francisco	Monday-Saturday, 7am-6pm or 9am-6pm	1-4 hours	$62.00-$72.00	$27.00
Pittsburgh	Monday-Saturday, 8am-6pm	No Time Limit	$45.00	$23.00-$38.00
St. Louis	Monday-Saturday, 8:00-7:00pm	2 hours	$10.00	$10.00

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Rates, Payment Type & Meter Type

Table 3 summarizes each city's meter rates, payment types, and types of meters. This shows that St. Louis charges $0.75-$1.00 for each hour the vehicle remains parked, uses single meter heads, and takes payment exclusively by coin. The majority of the comparison cities offer users a broader range of prices. For example, the City of San Francisco offers pricing at the low end of the rate scale charged in St. Louis, at $0.75, but also charges rates as high as $6.00 per hour in other areas. Being that the demand for

parking varies depending on location, time, and duration of stay, parking demand and supply are more likely to be met with a range of prices as opposed to one blanket fee.

Of the 12 cities examined, 6 solely use single-space meters and only one other city exclusively accepts coins. With updated parking technology and improved operating systems, there is an opportunity for St. Louis to improve its meter inventory with more innovative payment forms and operating systems. Plans are currently underway to install new meters in the City of St. Louis which will accept both credit cards and coins.

Table 3: Metered Parking Rate Comparison

City	Rates		Payment Type	Meter Types
	30 min	1 hr		
Indianapolis	$0.50	$1.00	Credit and Coin	Single-Space
Memphis	$0.50	$1.00	Credit and Coin	Multi-Space
Kansas City	$1.00	$1.00	Credit, Coin & Pay-by-Phone	Single- & Multi-Space
Baltimore	$0.25	$2.00-$4.00	Credit, Coin & Pay-by-Phone	Single-Space
Chicago	$2.00-$6.50	$2.00-$6.50	Credit, Coin & Pay-by-Phone	Multi-Space
Cleveland	-	$0.75	Coin Only	Single-Space
Columbus	$1.00-$2.00	$0.75-$1.00	Credit, Coin & Metercard	Single-Space
New York City	$2.00-$8.00	$1.00-$5.00	Credit, Parking Card, Cash, & Coin	Single- & Multi-Space, Censors
Los Angeles	$0.50-$3.00	$1.00-$4.00	Credit, Coin & Pay-by-Phone	Single- & Multi-Space
Washington D.C.	$0.25-$1.50	$0.75-$2.00	Credit, Coin & Pay-by-Phone	Single-Space
San Francisco	$0.25-$3.00	$0.25-$6.00	Credit, Coin & Pay-by-Phone	Single-Space with censors
Pittsburgh	-	$0.75-$2.50	Card & Coin	Single- & Multi-Space
St. Louis	-	$0.75- $1.00	Coin Only	Single-Space

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Benchmarking Conclusions

St. Louis ranks 12 out of 13 in terms of population and 7 out of 12 in terms of meter inventory. Although St. Louis has a larger land mass to place meters, the population does not likely require all 9,404 meters located throughout the city.

St. Louis additionally showed lower meter rates in comparison to the 12 other cities examined. There are seven cities that have higher maximum meter rates, three that are the same, and one that is lower. St. Louis also had the lowest overtime violation fee.

Chapter 3. Phasing of Meter Installation

Introduction

Meters are installed in areas of high parking demand, often reflecting commercial developments, residential activity, and retail expansions or reductions. Existing meters within the City of St. Louis were initially placed in this pattern, however many of the meter locations are no longer reflective of parking demand. Alternatively, there are several high demand corridors which would benefit from the installation of additional meters.

The proposed alterations in meter placement which are detailed below were based on meter revenues provided by the City, the occupancy analysis discussed above, and anecdotal evidence of future developments taking place throughout the City. Installation and phasing recommendations were established to reflect current demand, to increase parking turnover, and to generate additional revenue.

Proposed Phasing Strategy

DESMAN has divided the existing parking meter system into four categories that delineate which of the City's parking meters are to be replaced, and when. The four categories are: high priority installation, low priority installation, elimination, and addition. The meters were divided into categories based on the occupancy surveys conducted by DESMAN, in addition to an analysis of historical parking meter revenue provided by the City. Using this data, DESMAN divided the existing parking meters into the following four categories:

1.) High Priority. This is referred to as "Phase 1 Installation" in the corresponding graphics. This category includes meter clusters which generated an average of over $500 in revenue per meter in 2013 and had observed occupancy levels exceeding 50%.

2.) Low Priority. This is referred to as "Phase 2 Installation" in the corresponding graphics. This category includes meter clusters which generated an average of between $100 and $500 in revenue per meter in 2013 and had observed occupancy exceeding 25%. The majority of these meters should be replaced, however they are not major revenue generators and therefore do not need to be a priority when meter installation begins.

3.) Elimination. These are areas which DESMAN has proposed for elimination. On average, these meters generated less than $100 of revenue per meter in 2013 and did not achieve an observed occupancy rate greater than 25%. The cost of installing and operating these meters in these locations are expected to exceed their potential monetary returns.

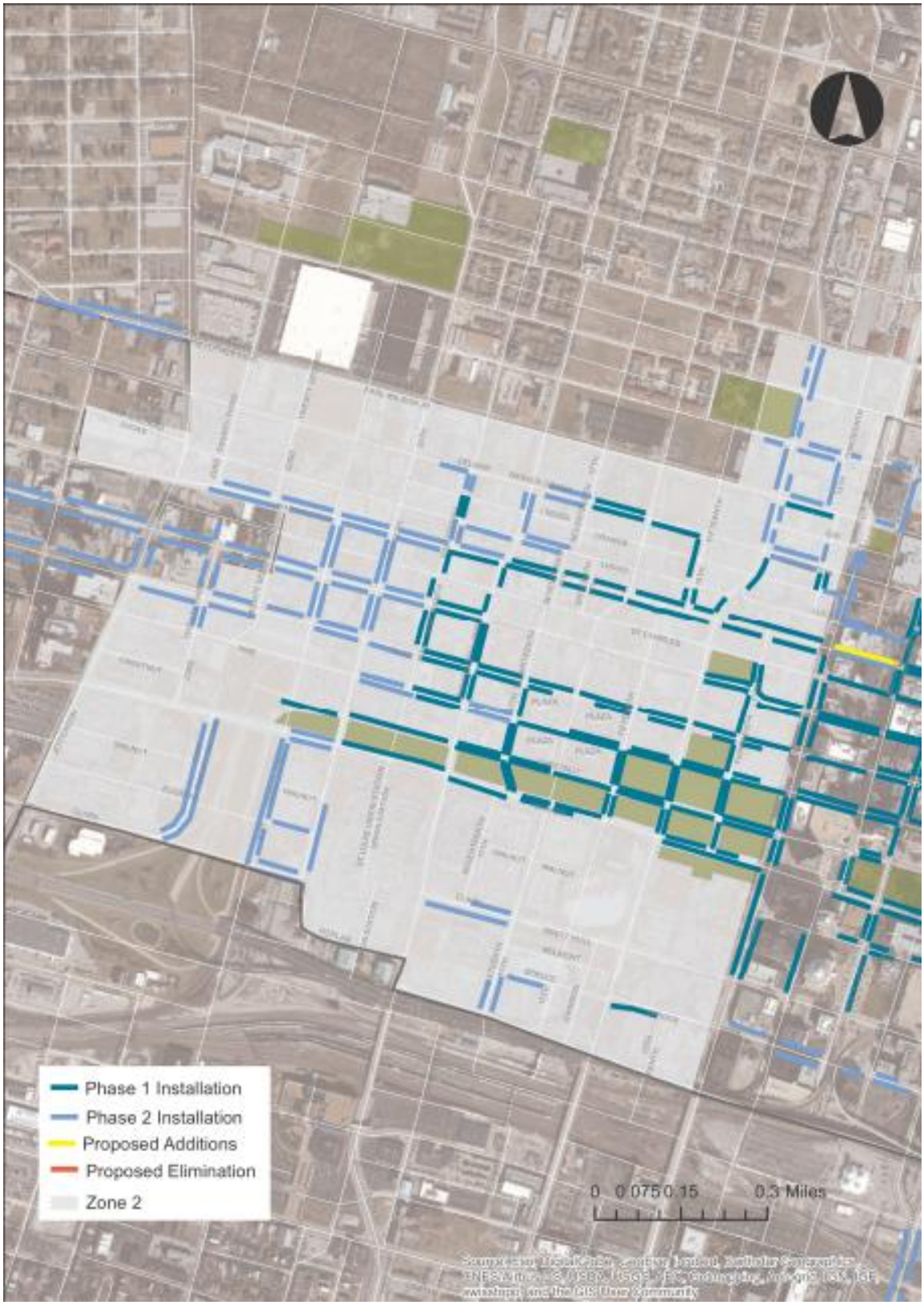
    As an alternative to eliminating these meters immediately, the City could consider replacing any non-operating meters with functioning single-space meters removed from other areas of the City, combined with more frequent enforcement of these areas. If the parking meters begin to generate significant revenue, consideration could be given to replacing the meters with the new multi-space technology. If the meter areas continue to not produce significant revenue, the City could proceed with removal.

4.) Addition. These are areas in which DESMAN has proposed additional meters. These areas were identified based on their proximity to high occupancy meters and future development within St. Louis. It is important to retain meters in proximity to high demand areas as they ensure that drivers do not park in free spaces in proximity to their destination.

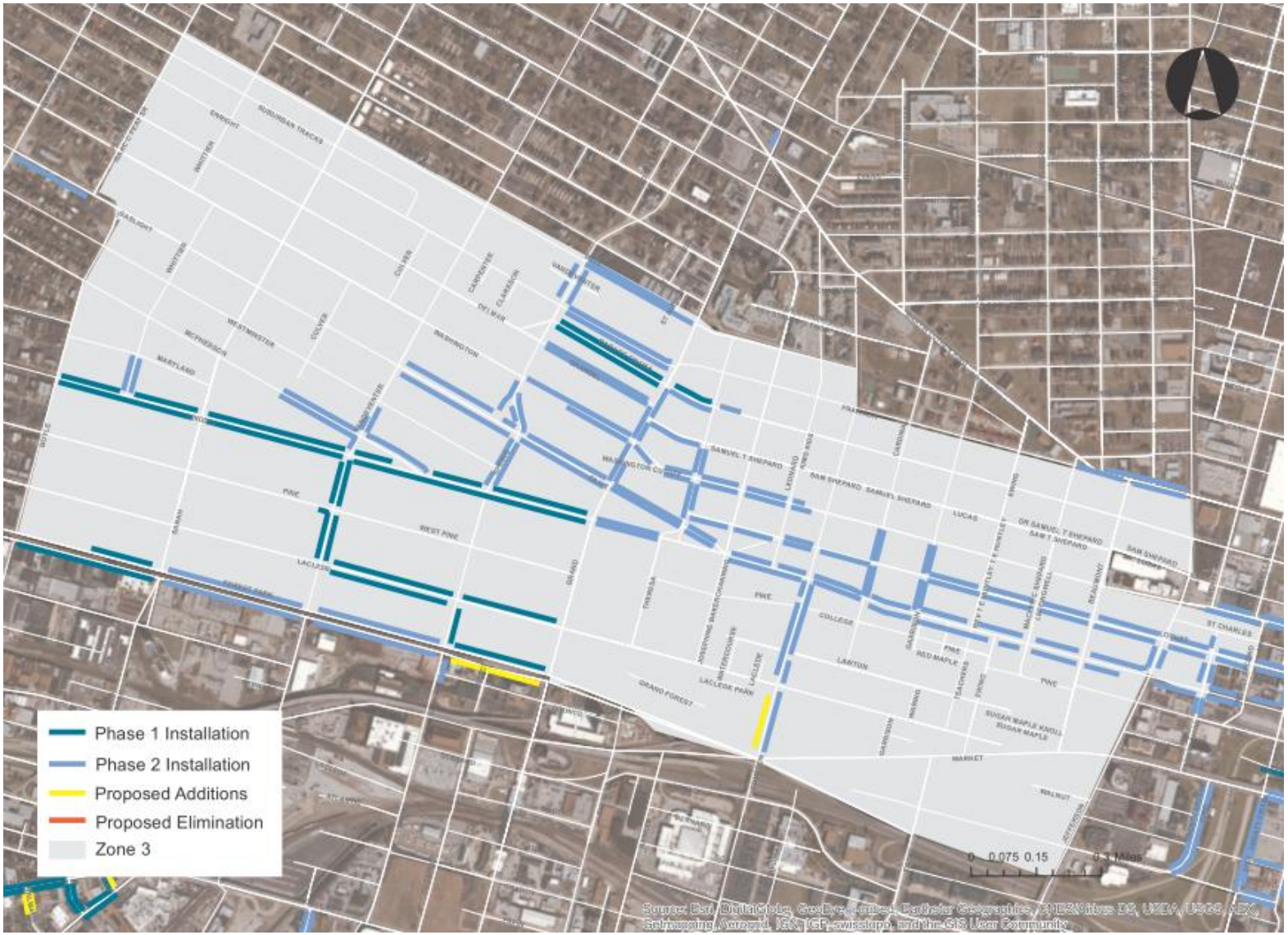
Below are graphics illustrating the locations of all existing parking meters throughout the City which also show the proposed treatment of each segment in terms of the installation of new parking meters or elimination of meters.

Proposed Alterations – Zone 1

Proposed Alterations – Zone 2

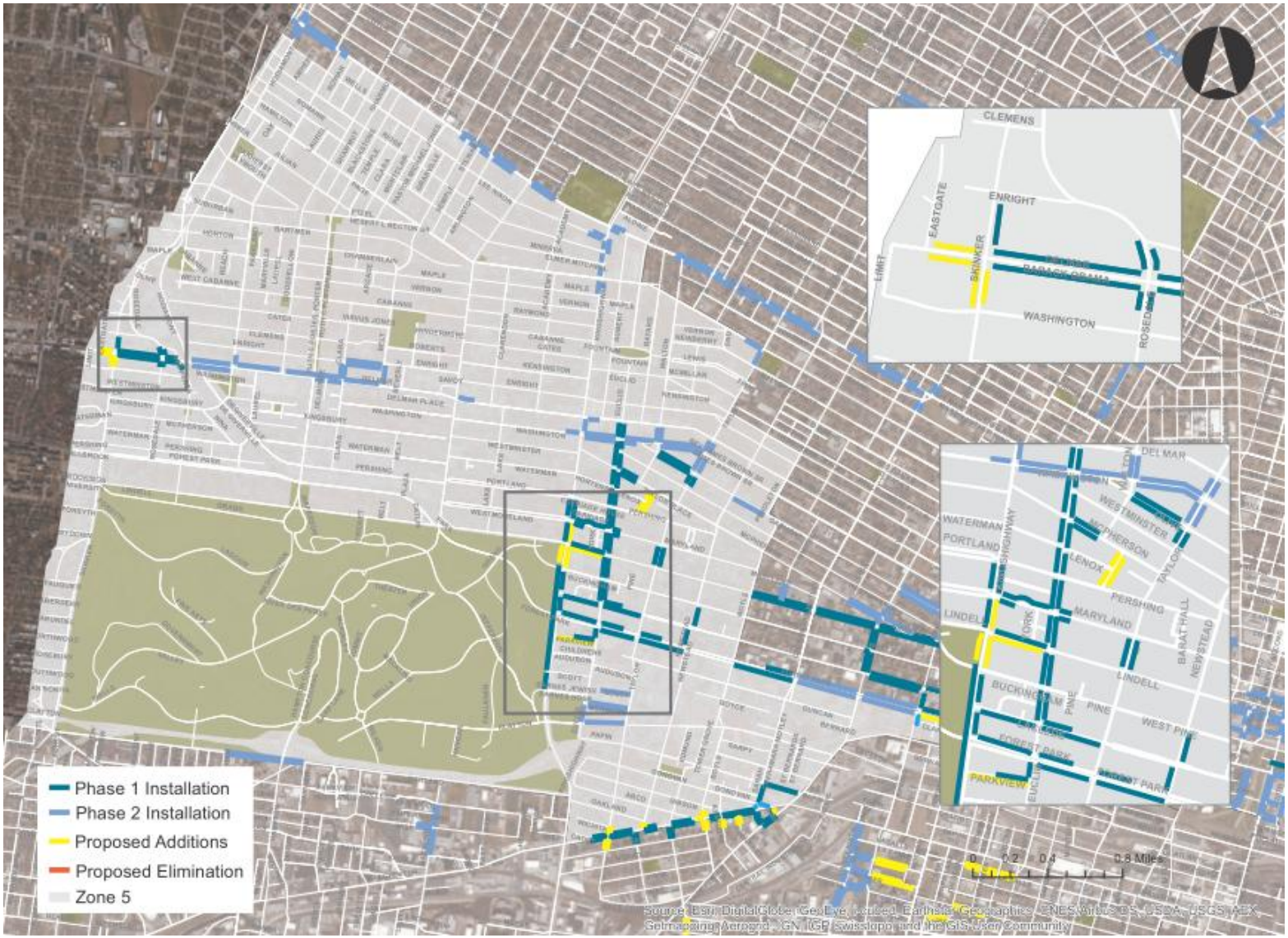


Proposed Alterations – Zone 3



Proposed Alterations – Zone 4

Proposed Alterations – Zone 5



Proposed Alterations – Zone 6

Proposed Alterations – Zone 8

Phasing of Meter Installation Conclusions

The majority of the installations are proposed in Zone 5, due to the fact that several of the more lucrative meter areas are located in that Zone. In addition, Zones 1 and 2 are largely being recommended for immediate installation of new meter technology.

Conversely, the majority of the proposed eliminations are recommended to come from Zone 8. The recommendation is to eliminate all meters within the boundaries of this Zone. Although this may seem like a large number of meters to remove, there is limited demand for these meters, making it difficult to justify the costs associated with enforcing and maintaining these meters.

The current number of existing meters is 9,404. Based on the above recommendations, approximately 450 meters would be installed, 2,000 would be eliminated, resulting in a new total inventory of approximately 7,850 metered spaces. These recommendations attempt to ensure that meter replacement reflects existing demand and incoming development.

Chapter 4. Residential Permit Parking Zones and Business Parking Spaces

Introduction

Residential Permit Parking Zones and Business Parking Spaces are created to limit parking on designated streets in densely populated or highly trafficked neighborhoods in order to ensure that spaces are available for those they are intended to serve (residents or businesses). Below is sample language that may be used by the City to create and govern Residential Parking Permit Zones and Business Parking Spaces. This language was taken from the municipal code of a major U.S. city where these programs have been successfully implemented. The text below adapts this language to reflect the needs of the City of St. Louis. While the language includes proposed rules and fees for governing these programs, the below text is intended to be used as a guide and should be adjusted based on input from the appropriate departments within the City. Additionally, blank spaces are left throughout the language to denote where the City will need to determine what Department is responsible for that portion of the policy.

Creating Residential Parking Permit Zones

(a) City Code 17.62.050 states that "*the Parking Commission shall have authority to install parking meters, institute parking permit programs and special parking zones along the streets and in other public areas where the parking of motor vehicles is not prohibited…to effectively control public parking. Parking permit programs shall also be subject to the approval of any Alderman in whose ward the program is instituted*". Subject to the approval of the Board of Aldermen, the Parking Commission is authorized to erect and maintain permit parking only when all of the following conditions have been met:

(1) An application, which clearly states the cause(s) of the parking problems creating the need for the proposed residential parking permit zone, and the time periods of parking restriction that are requested (stated in hours, days and months), is submitted to the treasurer. The application must be accompanied by a petition requesting the proposed residential parking permit zone and signed and dated by at least 65 percent of the adult residents in the proposed zone, as determined by _____. Any signature on the petition, to be valid, must be dated within a year of the date the petition is submitted to the treasurer.

(2) The size of the proposed residential parking permit zone is a minimum of one block, and if more than one block, all blocks in the proposed zone are contiguous.

(3) At least 80 percent of the occupied frontage, at ground level, of each block in the proposed residential parking permit zone is in use for residence purposes.

(4) A parking study determines that at least 45 percent of the vehicles parked in the proposed residential parking permit zone during the time periods requested for the permit are not owned by residents of the proposed zone.

(5) A parking study determines that at least 85 percent of available on-street parking in the proposed residential parking permit zone is occupied during the time periods requested for the permit.

The _____ shall prepare and make available the form of application required by this subsection.

(b) As used in this section, the term "block" shall mean both sides of any street between street intersections.

(c) Upon receiving an application for a proposed residential parking permit zone, the _____ shall notify and solicit comments from each Alderman in whose ward part or all of the proposed residential parking permit zone will be located, and shall also take such measures as are necessary to determine whether the conditions of subsection (a) of this section have been met. Before approving an application, the _____ shall determine the time periods, stated in hours, days and months, when the parking restrictions of the residential parking permit zone shall be effective. Such parking restrictions shall be limited to the times during which the parking study determines the parking problems exist.

Upon approving an application, the _____ shall report his approval to each Alderman who previously was notified pursuant to this subsection, and to the Board of Aldermen committee on pedestrian and traffic safety. All residential parking permit zones created pursuant to this section shall require approval by a vote of the Board of Aldermen to be effective. The description of all residential parking permit zones shall be maintained by the _____.

Upon denying an application, the treasurer shall so notify each Alderman who previously was notified pursuant to this subsection, and the person who submitted the application. If an application is denied, reapplication for residential parking permit zone status for the same area cannot be made sooner than one year from the date the previous application was denied.

(d) When official signs are erected indicating resident permit parking only, parking shall be restricted to service and delivery vehicles, and home health care provider vehicles whose operators are doing business with residents of the residential parking permit zone and to vehicles displaying resident or visitor parking permits or other permits issued pursuant to Section B. In addition, a vehicle not in these categories may park legally for up to 15 minutes in a 24 hour period in a residential parking permit zone if its hazard indicator lights are flashing.

(e) It shall be unlawful to park any unauthorized vehicle in violation of signs erected or maintained pursuant to this section or any other ordinance or Board of Aldermen order which establishes and defines a residential parking permit zone for which permits are issued pursuant to Section B or other ordinance.

(f) After consultation with the _____ and the applicable Alderman, the _____ shall designate an area adjacent to, and within a 200-number range of street addresses of, a residential parking permit zone, if the city clerk has determined that the zone has created conditions that result in insufficient available parking in the designated area. Any person residing in the designated area shall qualify to acquire a permit to park in the residential parking permit zone. The owner of property with a business address located on either side of a block immediately adjacent to a residential parking permit zone shall qualify to acquire a permit to park in such adjacent zone, and shall be limited to one permit for each qualifying business address. Such designated areas shall be known as "Buffer Zones."

(g) Visitor parking permits issued pursuant to Section B herein shall be valid for a 24 hour period from the time of posting.

(h) Subject to the approval of the Board of Aldermen, a residential parking permit zone created pursuant to this section, or part thereof, shall be revoked upon occurrence of both of the following conditions:

(1) A petition, requesting revocation of part or all of the zone, signed and dated by at least 51 percent of the adult residents in the zone is submitted to the treasurer. If the petition requests revocation of only part of a residential parking permit zone, the size of the remaining zone must be at least one block. Any signature on the petition, to be valid, must be dated within a year of the date the petition is submitted to the treasurer.

(2) A parking study determines that less than 75 percent of available on-street parking in the residential parking permit zone, or part thereof sought to be revoked, is occupied during the time periods that parking is restricted.

Upon receiving a petition for revocation of part or all of a residential parking permit zone, the _____ shall notify and solicit comments from each Alderman in whose ward part or all of the residential parking permit zone is located. If the _____ concludes that both of the above conditions are met, the _____ shall recommend to the Board of Aldermen that the zone be revoked or modified. If the _____ concludes that both of the above conditions are not met, the _____ shall recommend to the Board of Aldermen that the zone be continued.

(i) Upon the creation, revocation or modification of a residential parking permit zone pursuant to this section, the appropriate city department shall install, remove or modify the pertinent parking zone signage, as appropriate.

(j) Any person alleged to have violated subsection (e) of this section may raise as an affirmative defense that (1) such person resided in the city for less than 30 days at the time he or she was cited for violation, or (2) the cited vehicle was purchased less than 30 days prior to the issuance of the violation. If the alleged violator can demonstrate, by clear and convincing evidence, that he or she resided in the city for less than 30 days or owned the vehicle for less than 30 days at the time the citation was issued, and that the appropriate fee was paid in accordance with Section B no later than 30 days following the commencement of city residence or purchase of the vehicle, no liability shall exist. A showing of recent residency may be made by a lease, utility billing records, or other appropriate documents. A showing of recent vehicle purchase may be made by applicable vehicle registration or title documents issued by the Secretary of State or other appropriate documents. Any person who knowingly provides inaccurate information in asserting the affirmative defense set forth in this subsection (j) shall be fined in an amount not to exceed $500.00.

Existing Residential Parking Permit Zones

Residential parking permit zones currently in existence in the City should be grandfathered-into the above policy and not be required to re-apply for their reserved parking status. If, however, an existing residential parking permit zone is revoked under the procedures outlined in (h) above, in order to reestablish that designation, the residents of the former zone will be required to follow the new procedures detailed above.

Issuing and Managing Residential Parking Permits

(a) Upon application and payment of the required fee to the _____, a representative from the office shall issue annual "residential parking permit" stickers to residents of the residential parking permit zone for use on each car owned and registered within any residential parking permit zone. Such a residential parking permit sticker shall be affixed, in accordance with the instructions printed thereon and without the use of supplemental adhesives, at the lower right-hand corner of the inside of the glass portion of the windshield of such motor vehicle. This permit sticker shall not guarantee or reserve any parking space, nor shall it exempt the holder from the observance of any traffic or parking regulation.

(b) Upon the payment by the applicant of the permit fee hereinafter provided, the _____ shall issue, or cause to be issued, a residential parking permit. The annual period for every such permit shall begin on July 1st and end on June 30th of the year following the year of issuance. However, any permit purchased before July 1 for the annual period to begin July 1 will be considered valid as soon as it is purchased and affixed as described above in paragraph (a). The _____ is authorized to provide a grace period, not exceeding 30 days, during times of heavy volume of applications, for all persons seeking to buy a residential parking permit. During any such grace period, the previously issued annual or one-day residential parking permits will continue to be valid.

(c)

(1) Upon application, individual "one-day" permits shall also be issued to residents for their use and for the use of nonresidents who are temporary visitors of the residential parking permit zone.

(2) Upon application, individual "one-day" permits shall also be issued to a home health care provider who is providing home health care services to a resident living within the residential parking permit zone. Such permits shall be issued only upon submission of the following documents: (i) a letter from the resident's physician indicating the patient's name, address and prescribed home health care services; (ii) satisfactory proof of the resident's address; and (iii) certification from the applicant that he/she is employed as a licensed home health care provider and is providing such services to the resident.

(3) The sale of residential parking permits in a residential parking permit zone shall be limited to 30 one-day permits per month, per residential address. For the purpose of this subsection, each unit of multiple-unit residential dwelling shall be considered as a separate residential address. Home health care providers shall be limited to the purchase of 30 one-day permits per month, per address where they provide services. One-day permits shall be color-coded by annual period and shall expire at the end of the annual period in which they are issued. These permits shall be good for one day only. The one-day permit must be validated by printing in indelible ink the date and time of day legibly and directly on its face in the space provided for this purpose. An undated permit or a permit that fails to indicate the time of day or a permit that otherwise fails to comply with the requirements of this subsection will be invalid.

(4) For purposes of this paragraph, "home health care provider" means a person primarily engaged in and licensed or certified to provide skilled nursing, social work services or other therapeutic services to a person at his/her residence according to a plan of treatment for

illness or infirmity prescribed by a physician or according to a plan to provide social work services prescribed by a licensed social worker or licensed clinical social worker. "Home health care services" includes part-time and intermittent nursing services, social work services and other therapeutic services such as physical therapy, occupational therapy, speech therapy, medical social services, services provided by a home health aide, and interpreters necessary for the administration of the prescribed care.

(d)

(1) The fee for an annual residential parking permit is $25.00 for each vehicle. Except as otherwise provided in paragraph (3) of this subsection (d), if application is made for the permit on or after July 1, 2015, the following fees shall apply:
Between July 1, 2015, and November 30, 2015 – 100 percent of the applicable fee; and
Between December 1, 2015, and March 31, 2016 – 66 percent of the applicable fee; and
Between April 1, 2016, and June 30, 2016 – 33 percent of the applicable fee; and
On and after July 1, 2016 – The amount of the prorated fee shall be based on the number of months for which the residential parking permit or wheel tax license/residential permit parking emblem is issued, as set forth in the prorated fee schedule established by the _____ pursuant to paragraph (2) of this subsection.

(2) The _____ is authorized to establish and administer a prorated fee schedule which shall apply to any person who purchases a residential parking permit for less than a year. The amount of the prorated fee shall be based on the number of months for which the residential parking permit is issued.

(3) Notwithstanding any language in this subsection (d) to the contrary, if, at any time after July 1, 2015, and before July 1, 2016, the _____ establishes, pursuant to paragraph (2) of this subsection, a prorated fee schedule for the residential parking permit, the amount of the prorated fee required to be paid under this subsection shall be as set forth in such prorated fee schedule.

(4) The fee for one-day permits shall be $15 for 30 permits. A replacement of an annual permit will be issued for $10 upon receipt of the permit number portion of the removed annual permit sticker and a receipt for the current annual permit sticker. Replacement of any permits which are lost or destroyed will be made at full cost.

(e) If a residential parking zone is in effect at the place of residence of a person with a disability who is an owner of a vehicle licensed to a handicapped individual, as the term handicapped individual is defined in Section _____ of the city code, such person shall be exempt from the residential permit parking fees set forth in paragraph (d) of this section.

(f) It shall be unlawful for any person to affix, cause to be affixed, or otherwise display any residential parking permit or other vehicle-specific permit issued pursuant to any other parking permit program to any automobile other than the vehicle to which the permit was intended to be affixed at the time of issuance by the city.

(g) It shall be unlawful for any person other than the city or an agent of the city to knowingly sell, offer for sale, expose for sale or acquire for the purpose of sale any residential parking permit, one-day permit, or other permit issued pursuant to any other parking permit program. The first violation of this subsection (g) shall be punishable as provided in subsection (j), the second such violation punishable by a fine of not less than $500 nor more than $750, the third such violation punishable by a fine of not less than $750 nor more than $1,000, and the fourth and subsequent such violations punishable by a fine of not less than $1,000 nor more than $1,500.

(h) It shall be unlawful for any person to purchase any residential parking permit, one-day permit or other permit issued pursuant to any other parking permit program from any person other than the city or an agent of the city.

(i) The _____ is authorized to issue temporary residential parking permits. Any such temporary residential parking permit shall be affixed, in accordance with the instructions printed thereon which are made a part thereof, at the lower right-hand corner on the inside of the glass portion of the windshield of the motor vehicle. Such temporary residential parking permit shall cease to be valid 30 days after its issuance.

(j) Except as otherwise provided in subsection (g) of this section, any person violating any of the provisions of this section shall be fined not less than $200.00 nor more than $500.00 for each offense, and each day such a violation continues shall be deemed a separate and distinct offense.

(k) The _____ shall have the authority to promulgate rules and regulations necessary to implement the requirements of this section.

Creating and Managing Business Parking Spaces

(a) No sign shall be erected upon the special request of the owner, agent or lessee of any building for the specific purpose of designating a business parking space in front of the entrance to such building, or in front of the property upon which such building is located, until the owner, agent or lessee has paid to the _____ the following:

(1) For a business parking space located in downtown as that term is defined by the city: (i) an annual fee of $600.00 for up to 20 linear feet of curb space used, which fee shall include the erection of the signage; and (ii) an annual fee of $60.00 per linear foot of each foot of curb space used in excess of 20 feet.

(2) For a business parking space located outside of downtown: (i) an annual fee of $300.00 for up to 20 linear feet of curb space used, which fee shall include the erection of the signage; and (ii) an annual fee of $30.00 per linear foot of each foot of curb space used in excess of 20 feet.

(3) Fees charged for a business parking space, whether located downtown or outside of downtown, as previously defined, shall increase annually at a rate no less than the rate at which parking meters fees in the surrounding area increase.

(4) No fee shall be charged for a business parking space in front of any public building including, but not limited to, any St. Louis Public School.

(b) If the owner, agent or lessee does not desire to continue maintenance of a sign erected under this section, he shall notify the city in writing at least 30 days prior to the last day of the current annual period. If the owner, agent or lessee fails either to give such notice or to remit the appropriate fees for the next annual period prior to the termination of the current annual period, the city shall remove such sign subject to the procedures contained in subsection (c) herein.

(c) The city shall cause a notice to be sent to the owner, agent or lessee informing such person that the sign or signs will be removed unless the annual maintenance fee is paid within 30 days from the date the notice is mailed. The _____ shall not authorize the erection of a new sign for a period of three years after the removal of any sign pursuant to this subsection unless payment of the fee for erection, annual surcharge and any prior unpaid maintenance fees owed to the city by such owner, agent or lessee has been made prior to or at the time of application for erection of a new sign.

(d) The city may remove any sign erected pursuant to this section whenever public convenience or necessity warrants after providing 15 days notice to the owner, agent or lessee, if any, who is paying annual fees for the sign.

Residential and Business Parking Conclusion

The proposed policies seek to maintain existing Residential Permit Parking Zones, while creating uniform language and policies to more efficiently manage them and the creation of new Zones. Additionally, this language seeks to provide the City a uniform policy for creating and managing Business Parking Spaces, while also ensuring that the City is fairly compensated by those businesses for the exclusive use of those spaces.

Chapter 5. On- and Off-Street Parking Rate Recommendations

Introduction

Properly set parking rates are integral for the effective management a successful parking system, not to mention integral to the financial stability of that system. The below text summarizes DESMAN's pricing recommendations for the City's on- and off-street parking assets, both during normal operating hours and during event periods. Additionally, a recommendation is made in relation to hours of enforcement of the parking meters in certain areas of the City.

Parking Meter Rates

Current parking meter rates are $1.00 per hour in downtown and $0.75 per hour outside of downtown. We recommend that rates be adjusted to permit higher rates in areas of greater demand and lower rates where demand is less intense. We recommend that as new meters are installed in the High Priority and Addition areas (as previously defined) where rates are currently $1.00, that rates be raised to $1.50 per hour. In the High Priority and Addition areas where rates are currently $0.75, we recommend rates be increased to $1.25 per hour. After a year of operation, the revenue and occupancy should be reconfirmed. In areas where revenue and occupancy are in the top 25%, it is recommended that rates be increased again from $1.25 or $1.50 per hour to $2.00 per hour.

All other existing meters should generally remain at $0.75 per hour unless they are surrounded by High Priority areas.

Future parking meter rate increases should occur on a regular basis as inflation dictates, with rates increasing every few years when the inflation adjustment warrants a $0.25 per hour increase. These rate increases, plus the revenue gains typically experienced when new meter technology is installed, should generate significant new revenue to support the system.

Meter Hours

At present, meter enforcement runs from 8:00 AM to 7:00 PM, Monday through Saturday. This time period misses much of the potential revenue from evening activities such as restaurants and bars. We recommend that meter enforcement be extended until 10:00 PM in areas that have evening activity, where feasible.

Event Rates

With new meter technology, rates can be adjusted automatically in areas serving major cultural and sporting events. We recommend that meter rates be increased to the equivalent of off-street rates for events in the areas immediately surrounding the venue. Typically, meters within a quarter mile would be at the same rate as off street parking, while those meters in the next few blocks would be half of the off-street rate, etc. Rates can be pre-programmed to increase at meters for baseball, hockey and football games, as well as conventions and other events at Busch stadium, the Edward Jones Dome, the Scottrade Center and other venues, such as those at Grand Center.

Elimination of Parking during Construction or Special Events

When meters are taken out of service for more than a day for construction by private entities or for special events, the City should be reimbursed for lost revenue. The rate should be equal to the hourly

parking rate times the number of hours of meter enforcement, times the number of days the meter will be out of service. This will provide contractors and event sponsors an incentive to keep meter closures as short as possible.

To ensure that a metered parking space or spaces taken out of service are not occupied by one entity for a period of time which exceeds the entity's actual need, DESMAN recommends that the maximum term of meter closure be set at three (3) months. After three (3) months, if the entity wishes to extend the meter closure for an additional three (3) months, approval must be sought from the Parking Supervisor. Extension of a meter closure may occur every 3 months in this manner with the approval of the Parking Supervisor, but total closure time may not exceed 18 consecutive months.

Off-Street Parking Facility Rates

Monthly and transient rates at City lots and garages should be tied to the market in the immediate area. When peak occupancy exceeds 80 percent, rates should be increased and when it is below 50 percent, consideration should be given to lowering rates. This is particularly true if the City facilities are losing customers to competitors. A semi-annual review of peak occupancy and competitive rates should be conducted around each facility in order to determine the annual recommended rate increases or decreases. At the present time, none of the facilities are regularly exceeding 80% occupancy, so rate increases beyond inflation are probably not in order. Event rates should be gradually increased when the parking facility regularly fills.

Conclusion

As new meters are installed, rates should be raised to either $1.50 or $1.25 per hour, based on the locations of the meters. After a year of operation, the revenue and occupancy should be reconfirmed and in areas where revenue and occupancy are in the top 25%, it is recommended that rates be increased again from $1.25 or $1.50 per hour to $2.00 per hour. Meter enforcement should be extended until 10:00 PM in areas with vibrant nightlife. Event rates at the on-street meters should be equivalent to the off-street event rates, gradually reducing each quarter mile farther from the venue. Off-street parking rates should generally be raised only when peak occupancy exceeds 80% on a regular basis. All rates should be indexed to inflation, even if rates are only increased every three or four years, because the rate of inflation is low.

Chapter 6. Best Practices

Introduction

With a desire to operate the City's parking system in the most efficient manner possible, the City expressed interest in best industry practices related to violation pricing structure, smart parking technology and treatment of employee parking in high-demand on-street areas. Best practices will allow St. Louis to compare itself to other successful parking systems and develop improved management strategies.

Dynamic Parking Pricing

The concept of dynamic parking pricing has been developed as a tool to manage the demand for parking spaces within a city or parking facility. The theory is, by raising prices for spaces in high demand areas and lowering prices in lower demand areas, drivers will shift their parking location toward the low demand areas. This will free-up spaces in the high demand areas, making available spaces easier to find for those willing to pay the higher price. Additionally, by creating more availability, there will be fewer vehicles circling looking for a space, pollution and congestion will be reduced and some drivers may shift to alternative modes of transport.

There is, however, an additional cost associated with implementing and monitoring a dynamic pricing policy for a parking system or facility. In San Francisco, for example, parking occupancy sensors are installed in each on-street parking space which monitors occupancy on a real-time basis. The cost associated with these sensors and the associated equipment and manpower necessary to collect and analyze the data can cost several hundred dollars per space. Even using a less sophisticated method of monitoring parking space occupancy, such as periodic counts of parked vehicles over the course of several weeks, has a cost in time and manpower.

The argument then becomes, is it worth it financially to implement a dynamic pricing policy in a city or facility where high parking occupancy is not a major issue.

In the City of St. Louis there are areas of parking meters that experience very high occupancy, sometimes exceeding 100% during peak daytime demand periods. This typically occurs downtown, specifically around the Courthouse and City Hall. The demand conditions experienced in this area are exacerbated by the fact that, at any given time, a large number of the parking meters are occupied by City employees who use parking permits and do not pay the meters (this will be discussed in more detail later in this memo).

In these same areas, within one or two blocks, there are street segments with meters that have available capacity during the peak daytime demand period. In addition, there are a number of off-street parking facilities in the area with available capacity that can accommodate the demand that cannot be accommodated on-street.

For these reasons, most notably the potential cost, we would not recommend the implementation of dynamic pricing for on- or off-street parking in St. Louis at the present time, aside from increasing on-street meter pricing during events. Before considering a non-event dynamic pricing policy, we recommend that the City implement the general rate increase previously recommended, that the pricing

of parking violations be adjusted as detailed below, and that changes to the employee on-street parking policy be implemented. These changes will create availability in high-demand, on-street parking areas, therefore making a dynamic pricing policy unnecessary.

Parking Violation Pricing

General Pricing Policy

The enforcement of parking rules and the issuance of violations to those parkers who break the rules is potentially the most crucial part of a successful on-street parking operation. Without effective parking enforcement and sufficient fines for violations, drivers are not adequately incentivized to follow the rules. Parking violation fines need to be carefully set in order maintain a balance between encouraging compliance, but not appearing overly punitive, potentially deterring people from parking at all.

While the ratio of parking meter violation fine to hourly parking rate varies widely from city-to-city, a general rule for pricing these violations is to charge 15x the hourly cost to park on-street. In the case of St. Louis, using the downtown hourly on street parking rate of $1.00 would equate to a fine of $15 versus the current $10.00. If parking meter rates are increased to $2.00 per hour as recommended, the violation fine should be set at $30.00. At this level, in combination with diligent enforcement, the fine is large enough to discourage repeat offenders, but not so large as to be an unrealistic burden on the accidental or occasional offender.

Based on these standards and the assumption that parking meter rates will be increased to $2.00 per hour in certain areas of the City, we recommend that parking meter violation fines be increased to $30.00, 15x the highest hourly on-street parking rate in the City.

It is further recommended that the fines levied for Class 2, 3, 4, and 5 violations be set as follows:

Class 2 Minor parking violations (e.g. no parking, bus, taxi or commercial vehicle zone or yellow curb violation) – increase from $25.00 to $45.00

Class 3 Public safety violations (e.g. no stopping, double parking or tow-away zone violation, blocking intersection, alley, or fire hydrant, lane or station, or traffic flow impairment) – increase from $30.00 to $45.00

Class 4 Disabled parking ordinance violation – increase from $75.00 to $100.00

Class 5 Commercial vehicle parking violations – remain at $100.00

In addition, for all classes of violations, the fines should be increased periodically, perhaps every 5-10 years, in order to keep pace with the anticipated increases in parking meter rates and inflation.

Graduated Fines

Graduated fines for parking violations are intended to reduce the number of persistent violators – those individuals who continue to park illegally or not pay for parking despite receiving numerous parking violations. In some cities, just 8% of the vehicles that received tickets accounted for as much as 29% of all tickets issued in a given year. While increasing the fine for the first offense should help curb occasional violators, more significant penalties are typically needed to change the behavior of habitual offenders. Graduated fines provide this additional incentive to follow the rules.

Under this system, the fine amount increases for each parking violation received within a certain period of time after the first violation (typically a year). For instance, in Claremont, California, the second parking meter violation within one year of the first results in a fine that is double the amount of the original fine. The third and every subsequent violation within that same year results in a fine that is triple the original fine. This type of pricing structure does not eliminate the normal penalties that are assessed for late payment of a violation.

A system of graduated fines still treats the occasional or accidental violator the same – the fine amount for a violation does not increase if one violation or less per year is received. However, because of the potential for even the occasional or accidental violator to receive more than one ticket in a year, the potential is there for a graduated fine structure to impact more than just habitual offenders. This has the potential to create bad publicity for the City.

Keeping in mind the balance between the potential benefit of eliminating persistent parking violators and the potential negative impacts of negative press for the City, we recommend that the City attempt to quantify the number of habitual parking offenders in order to determine if instituting a graduated fine structure is warranted. If persistent violators are a major problem in the City, a graduated fine structure is recommended in order to alter parking behavior. If the City chooses to institute such a program, we would recommend the same structure detailed above – the first violation is the base fine, the second violation within a year is double the base fine and the third and each subsequent violation within a year is triple the base fine.

Smart Parking Technology

Smart parking technology is a phrase that refers to pieces of equipment, services or tools designed to get drivers to a parking location as efficiently as possible. The goal is to remove the uncertainty involved in finding an available parking space and paying for that space once a driver gets close to their ultimate destination. These technologies not only help individual drivers, they also help to reduce the congestion created by drivers circulating, looking for available parking.

Examples of smart parking technology include, but are not limited to:

- Real-time parking space availability signs on the outside and inside of a garage
- Applications for mobile devices that direct drivers to open parking spaces
- In-ground of mounted sensors that monitor the availability of parking spaces on-street or at an off-street parking facility
- Services that allow for customers to pre-pay for parking at sporting events, the theater or concerts
- Variable message signs in a city that direct drivers to the nearest available parking location

While there are clearly benefits to implementing smart parking technologies, these technologies also come with a cost. Real-time parking space availability signage connected to space censors can cost several hundred thousand dollars for a single garage. Online parking reservation applications cost money to have developed, not to mention the ongoing costs associated with having the site hosted online.

Given that the observed peak occupancy of the City's off-street parking facilities has been documented at around 50%, with one facility reaching as high as 73% occupancy, and widely available on-street parking spaces even in the core of downtown, it is DESMAN's opinion that many of the smart parking technologies in the market today would not provide enough value to the City to make them worth the financial investment. The one exception that we would recommend is the implementation of online pre-payment for event parking. The City should seek to partner with large event venues and the major sports teams to offer pre-paid event parking in City facilities, with a link to the parking payment website included on the venues' or sports teams' websites.

As occupancy in City parking facilities increases to 90% and above, the use of additional smart parking technologies should be reconsidered.

Employee On-Street Parking Policy

At present, individuals employed by certain City departments or the County can park for free, at any time, in any on-street metered parking space, provided they display any one of a number of City parking permits. While it is necessary for certain employees to have convenient access to work-related vehicles (e.g. Police and Sheriffs), most activities for which City or County vehicles are needed on a regular basis should not require that the vehicle be parked in the most convenient on-street parking space for extended periods of time. Centrally located on-street parking, such as the spaces around the Courthouse and City Hall, are the spaces most desired by visiting patrons. However, when the City allows employees to park long-term in these spaces, they lose a significant amount of potential revenue and confuse visitors who are now forced to cruise for an open space.

In St. Louis, the problem of employees parking in the most convenient on-street parking spaces and not paying is exacerbated by the fact that there is no comprehensive list of authorized and outstanding City-issued permits, or a specific set of rules governing which departments are permitted parking permits and why they qualify. This makes it nearly impossible to determine which vehicles displaying permits are parked for legitimate City business and which are not.

It is DESMAN's recommendation that a complete evaluation of the City parking permit system be conducted in order to determine which departments or City functions require such ready access to their vehicles that they may park at any metered on-street parking space for free. As previously stated, this should be a very limited number of vehicles and the privilege should be limited to only those time periods during which City business is being conducted. Once this evaluation has been completed, control over and issuance of valid permits should be centralized with the Treasurer's Office or another appropriate City department. All other City parking permits should be revoked and employees should be directed to park City vehicles in one of the City-owned, off-street parking facilities.

Best Practices Conclusion

Dynamic pricing for on- or off-street parking in St. Louis should not be implemented at the present time. The one exception is to increase parking meter pricing during event periods, as discussed in our recommendations memo related to price increases.

Parking meter violation fines should be increased to $30.00 in order to create more of a deterrent for people to park illegally. It is also recommended that the fines levied for Class 2, 3, 4, and 5 violations be set as follows:

Class 2 Minor parking violations (e.g. no parking, bus, taxi or commercial vehicle zone or yellow curb violation) – increase from $25.00 to $45.00

Class 3 Public safety violations (e.g. no stopping, double parking or tow-away zone violation, blocking intersection, alley, or fire hydrant, lane or station, or traffic flow impairment) – increase from $30.00 to $45.00

Class 4 Disabled parking ordinance violation – increase from $75.00 to $100.00

Class 5 Commercial vehicle parking violations – remain at $100.00

Additionally, the City should attempt to quantify the number of habitual parking offenders prior to choosing whether or not to institute a graduated fine structure. If persistent violators are a major problem in the City, a graduated fine structure is recommended with the cost for the first violation equal to the base fine, the cost for the second violation within a year equal to double the base fine, and the cost for the third and each subsequent violation within a year equal to triple the base fine.

It is our opinion that many of the smart parking technologies in the market today would not provide enough value to the City to make them worth the financial investment. However, the City should seek to partner with large event venues and the major sports teams to offer pre-paid event parking in City facilities, with a link to the parking payment website included on the venues' or sports teams' websites. As occupancy in City parking facilities increases to 90% and above, the use of additional smart parking technologies should be reconsidered.

Lastly, the City should conduct a complete evaluation of the parking permit system in order to determine which departments or City functions require such ready access to their vehicles that they may park at any metered on-street parking space for free. Once the evaluation has been completed, control over and issuance of valid permits should be centralized with the Treasurer's Office or another appropriate City department. All other City parking permits should be revoked and employees should be directed to park City vehicles in one of the City-owned, off-street parking facilities.